

Claims:

1. A multilayer composite which comprises the following layers:
- 5 I. an interior layer I selected from among a fluoropolymer molding composition and a polyolefin molding composition;
- II. a bonding agent layer II which has the following composition:
- 10 a) from 0 to 80 parts by weight of a graft copolymer prepared using the following monomers:
- from 0.5 to 25% by weight, based on the graft copolymer, of a polyamine having at
 - 15 least 4 nitrogen atoms and
 - polyamide-forming monomers selected from among lactams, ω -aminocarboxylic acids and equimolar combinations of diamine and dicarboxylic acid;
- 20 b) from 0 to 85 parts by weight of polyamide,
- c) from 0 to 85 parts by weight of a polymer selected from among fluoropolymers and polyolefins,
- with the sum of the parts by weight of a), b) and
- 25 c) being 100,
- and, in addition,
- the sum of the components a) and b) comprising at least 20 parts by weight of monomer units derived from caprolactam and/or
 - 30 the combination hexamethylenediamine/adipic acid, hexamethylenediamine/suberic acid, hexamethylenediamine/sebacic acid, hexamethylenediamine/dodecanedioic acid, hexamethylenediamine/isophthalic acid
 - 35 or hexamethylenediamine/terephthalic acid and
- d) not more than 50 parts by weight of additives selected from among impact-modifying rubber and customary auxiliaries and additives;

III. a layer III comprising an EVOH molding composition.

2. The multilayer composite as claimed in claim 1,
5 characterized in that

- the component II.a) is present in an amount of from 1 to 60 parts by weight and/or
- the component II.b) is present in an amount of from 10 to 75 parts by weight.

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3. The multilayer composite as claimed in claim 1, characterized in that

- the component II.a) is present in an amount of from 3 to 40 parts by weight and/or
- 15 - the component II.b) is present in an amount of from 25 to 65 parts by weight.

4. The multilayer composite as claimed in any of the preceding claims, characterized in that from 5 to 75
20 parts by weight of the component II.c) are present.

5. The multilayer composite as claimed in claim 4, characterized in that from 10 to 65 parts by weight of the component II.c) are present.

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6. The multilayer composite as claimed in claim 4, characterized in that from 20 to 55 parts by weight of the component II.c) are present.

30 7. The multilayer composite as claimed in any of the preceding claims, characterized in that the fluoropolymer is selected from the group consisting of PVDF, ETFE, ETFE modified by means of a third component, E-CTFE, PCTFE, THV, FEP and PFA.

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8. The multilayer composite as claimed in any of claims 1 to 6, characterized in that polyethylene or isotactic polypropylene is used as polyolefin.

9. The multilayer composite as claimed in any of the preceding claims, characterized in that the fluoropolymer or the polyolefin is adhesion-modified.

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10. The multilayer composite as claimed in any of the preceding claims, characterized in that the polyamide of the component II.b. comprises PA6, PA66, PA6/66, PA68, PA610, PA612, a polyamide derived from
10 hexamethylenediamine together with isophthalic acid and/or terephthalic acid or mixtures thereof.

11. The multilayer composite as claimed in any of the preceding claims, characterized in that it additionally
15 has a layer which comprises a polyamide molding composition or a polyolefin molding composition and is joined to the layer III by means of a suitable bonding agent.

20 12. The multilayer composite as claimed in any of the preceding claims, characterized in that it is a pipe or a hollow body.

13. The multilayer composite as claimed in any of the
25 preceding claims, characterized in that it is a pipe which is corrugated in its entirety or in subregions.

14. The multilayer composite as claimed in any of the preceding claims, characterized in that it is a fuel
30 line, a brake fluid line, a coolant line, a hydraulic fluid line, a filling station line, an air conditioner line, a vapor line, a container or a filling port.

15. The multilayer composite as claimed in any of the
35 preceding claims, characterized in that one of the layers of which the composite is composed or an additional interior layer has been made electrically conductive.

16. The multilayer composite as claimed in any of the preceding claims, characterized in that it is produced by coextrusion, coating, multicomponent injection molding or coextrusion blow molding.

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